Abstract

Large scale systems can be monitored and, if necessary have an action taken, by employing a knowledge machine that develops programs for at least two machines, the first machine being an information collection system which obtains the latest values of variables, which may be objects, and a second machine which employs the variables in the execution of the program developed for it by the knowledge machine to determine the current state of the large scale system. In response to the monitoring an action may be taken. Advantageously, the environment as it would have existed without the program which controls the second machine having taken previous action may be known, and this information is used to take further action now or in the future. Thus, the system is self learning and self adjusting, allowing it to optimize the environment in an adaptive manner.